# WEST

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**Term:** 13 and 14

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| Set Name side by side | Query | Hit Count | Set Name result set |
|---|---|---|---|
| *DB=USPT,PGPB; PLUR=YES; OP=AND* | | | |
| L6 | l1 and l2 and l4 | 109 | L6 |
| L5 | l3 and l4 | 2 | L5 |
| L4 | homologous adj recombination or deficient or knockout | 48811 | L4 |
| L3 | l1 same l2 | 7 | L3 |
| L2 | transgen$ near5 (mouse or mice or animal or sheep or mammal or rabbit) | 9382 | L2 |
| L1 | elastin or tropoelastin | 3047 | L1 |

END OF SEARCH HISTORY

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**Search Results** - Record(s) 1 through 2 of 2 returned.

☐ 1. 20020102581 . 06 Sep 01. 01 Aug 02. Diagnostics and therapeutics for ocular disorders. Hageman, Gregory S., et al. 435/6; 435/40.5 435/7.2 C12Q001/68 G01N033/53 G01N033/567.

☐ 2. 6028245 . 25 Jun 98; 22 Feb 00. Transgenic animals overexpressing MDM2. Wasylyk; Bohdan, et al. 800/18; 435/440 435/455 800/13 800/14 800/3 800/8 800/9. C12N015/00.

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| Terms | Documents |
|---|---|
| 13 and 14 | 2 |

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=> d his

     (FILE 'HOME' ENTERED AT 14:53:52 ON 04 OCT 2002)

     FILE 'MEDLINE, CAPLUS, BIOSIS, SCISEARCH' ENTERED AT 14:54:05 ON 04 OCT
     2002
L1         23682 S ELASTIN OR TROPOELASTIN
L2        119018 S TRANSGEN?(5A)(MOUSE OR MICE OR ANIMAL OR MAMMAL OR RABBIT
OR
L3           158 S L1 AND L2
L4        462910 S HOMOLOGOUS(W)RECOMBINATION OR DEFICIENT OR KNOCKOUT
L5             9 S L3 AND L4
L6             8 DUP REM L5 (1 DUPLICATE REMOVED)

=> d bib ab 1-8 l6

L6   ANSWER 1 OF 8  CAPLUS  COPYRIGHT 2002 ACS
AN   2002:10199  CAPLUS
DN   136:65205
TI   Altering textile fiber properties by expression of foreign fiber protein
     genes in hair follicles
IN   Bawden, C. Simon; Rogers, George; Walker, Simon; Powell, Barry
PA   Luminis Pty Ltd, Australia; South Australian Research and Development
     Institute
SO   PCT Int. Appl., 83 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.         KIND  DATE           APPLICATION NO.   DATE
     ---------------    ----  --------       ---------------   --------
PI   WO 2002000016      A1    20020103       WO 2001-AU779     20010628
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
             UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 2001067154      A5    20020108       AU 2001-67154     20010628
PRAI AU 2000-8459       A     20000628
     AU 2000-8460       A     20000628
     WO 2001-AU779      W     20010628
AB   A method of altering the phys. or chem. properties of hair or wool fibers
     by altering patterns of expression of genes for wool or fiber proteins in
     hair follicles is described.  The method includes the steps of expressing
     one or more foreign protein genes in follicle cells of the hair or wool
     fiber, and/or over-expressing or under-expressing one or more endogenous
     proteins in follicle cells of the hair or wool fiber.  The protein is
     expressed in at least one compartment of the hair follicle so that is
     interacts phys. and/or chem. with native KAP and/or IF structural
proteins
     and the interactions are relatively uniform in distribution throughout
the
     compartment to thereby alter the properties of the hair or wool fiber
     without substantially affecting the structural integrity of the fiber.
     The exogenous protein does not substantially disrupt the tensile strength
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of the fiber and the wool fiber is able to extend by at least 30% before breakage. Furthermore, the wool fiber has a load bearing capacity of at least 40 MPa. In one specific embodiment, silk proteins are expressed in the cortex of hair or wool fibers to thereby alter the properties of the hair or wool fiber. This invention has uses in textiles including thermo-protective clothing, in external supportive ligature materials to provide mech. support to damaged skeletal joints, for military-grade materials and for stain or abrasion resistant furnishings and carpeting.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 8 MEDLINE DUPLICATE 1
AN 2000305579 MEDLINE
DN 20305579 PubMed ID: 10845862
TI Alpha(2)-antiplasmin gene deficiency in mice does not affect neointima formation after vascular injury.
AU Lijnen H R; Van Hoef B; Dewerchin M; Collen D
CS Center for Molecular and Vascular Biology, University of Leuven, Leuven, Belgium.. roger.lijnen@med.kuleuven.ac.be
SO ARTERIOSCLEROSIS, THROMBOSIS, AND VASCULAR BIOLOGY, (2000 Jun) 20 (6) 1488-92.
Journal code: 9505803. ISSN: 1079-5642.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200006
ED Entered STN: 20000706
Last Updated on STN: 20000706
Entered Medline: 20000622
AB The hypothesis that alpha(2)-antiplasmin (alpha(2)-AP), the main physiological plasmin inhibitor, plays a role in neointima formation was tested with use of a vascular injury model in wild-type (alpha(2)-AP(+/+)) and alpha(2)-AP-**deficient** (alpha(2)-AP(-/-)) mice. The neointimal and medial areas were similar 1 to 3 weeks after electric injury of the femoral artery in alpha(2)-AP(+/+) and alpha(2)-AP(-/-) mice, resulting in comparable intima/media ratios (eg, 0.43+/-0.12 and 0.42+/-0.11 2 weeks after injury). Nuclear cell counts in cross-sectional areas of the intima of the injured region were also comparable in arteries from alpha(2)-AP(+/+) and alpha(2)-AP(-/-) mice (78+/-19 and 69+/-8). Fibrin deposition was not significantly different in arteries of both genotypes 1 day after injury, and no mural thrombosis was detected 1 week after injury. Fibrinolytic activity in femoral arterial sections, as monitored by fibrin zymography, was higher in alpha(2)-AP(-/-) mice 1 week after injury (P<0.001) but was comparable in both genotypes 2 and 3 weeks after injury. Staining for **elastin** did not reveal significant degradation of the internal elastica lamina in either genotype. Immunocytochemical analysis revealed a comparable distribution pattern of alpha-actin-positive smooth muscle cells in both genotypes. These findings indicate that the endogenous fibrinolytic system of alpha(2)-AP(+/+) mice is capable of preventing fibrin deposition after vascular injury and suggest that alpha(2)-AP does not play a major role in smooth muscle cell migration and neointima formation in vivo.

L6 ANSWER 3 OF 8 SCISEARCH COPYRIGHT 2002 ISI (R)
AN 2000:620066 SCISEARCH

GA The Genuine Article (R) Number: 342BJ
TI Gelatinase B is required for alveolar bronchiolization after intratracheal bleomycin
AU Betsuyaku T; Fukuda Y; Parks W C; Shipley J M; Senior R M (Reprint)
CS BARNES JEWISH HOSP, DEPT MED, NORTH CAMPUS, 216 S KINGSHIGHWAY, ST LOUIS, MO 63110 (Reprint); WASHINGTON UNIV, SCH MED, DEPT MED, ST LOUIS, MO 63110; WASHINGTON UNIV, SCH MED, DEPT MED, ST LOUIS, MO 63110; WASHINGTON UNIV, SCH MED, DEPT PEDIAT, ST LOUIS, MO 63110; WASHINGTON UNIV, SCH MED, DEPT CELL BIOL & PHYSIOL, ST LOUIS, MO 63110; NIPPON MED COLL, DEPT PATHOL, TOKYO 113, JAPAN
CYA USA; JAPAN
SO AMERICAN JOURNAL OF PATHOLOGY, (AUG 2000) Vol. 157, No. 2, pp. 525-535. Publisher: AMER SOC INVESTIGATIVE PATHOLOGY, INC, 428 EAST PRESTON ST, BALTIMORE, MD 21202-3993.
ISSN: 0002-9440.
DT Article; Journal
FS LIFE; CLIN
LA English
REC Reference Count: 56
*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*
AB Increased expression of matrix metalloproteinases, particularly gelatinase B (MMP-9), has been described in the lungs In pulmonary fibrosis. Intratracheal bleomycin is often used experimentally to produce lesions resembling human fibrosing alveolitis. To assess the role of gelatinase B in bleomycin-induced fibrosing alveolitis, we instilled bleomycin intratracheally into gelatinase B-**deficient** mice and gelatinase B+/+ littermates, Twenty-one days after bleomycin the two groups of mice were indistinguishable in terms of pulmonary histology and total lung collagen and **elastin**. However, the lungs of gelatinase B-**deficient** mice showed minimal alveolar bronchiolization, whereas bronchiolization was prominent In the lungs of gelatinase B+/+ mice. Gelatinase B was identified Immunohistochemically in terminal bronchiolar cells and bronchiolized cells 7 and 14 days after bleomycin in gelatinase B+/+ mice, and whole lung gelatinase B mRNA was increased at the same times. Many bronchiolized cells displayed Clara cell features by electron microscopy. Some bronchiolized cells stained with antibody to helix transcription factor 4, a factor associated with the ciliated cell phenotype. Thus, fibrosing alveolitis develops after intratracheal bleomycin irrespective of gelatinase B. However, gelatinase B is required for alveolar bronchiolization, perhaps by facilitating migration of Clara cells and other bronchiolar cells into the regions of alveolar injury.

L6 ANSWER 4 OF 8 SCISEARCH COPYRIGHT 2002 ISI (R)
AN 1999:952525 SCISEARCH
GA The Genuine Article (R) Number: 263AQ
TI Accelerated neointima formation after vascular injury in mice with stromelysin-3 (MMP-11) gene inactivation
AU Lijnen H R (Reprint); VanHoef B; Vanlinthout I; Verstreken M; Rio M C; Collen D
CS KATHOLIEKE UNIV LEUVEN, CTR MOL & VASC BIOL, CAMPUS GASTHUISBERG, O&N, HERESTR 49, B-3000 LOUVAIN, BELGIUM (Reprint); ULP, INSERM, CNRS, ILLKIRCH GRAFFENS, FRANCE
CYA BELGIUM; FRANCE
SO ARTERIOSCLEROSIS THROMBOSIS AND VASCULAR BIOLOGY, (DEC 1999) Vol. 19, No. 12, pp. 2863-2870.

Publisher: LIPPINCOTT WILLIAMS & WILKINS, 227 EAST WASHINGTON SQ, PHILADELPHIA, PA 19106.
ISSN: 1079-5642.
DT Article; Journal
FS LIFE
LA English
REC Reference Count: 38
*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*
AB The hypothesis that stromelysin-3 (MMP-11), a unique member of the matrix metalloproteinase (MMP) family, plays a role in neointima formation was tested with the use of a vascular injury model in wild-type (MMP-11(+/+)) and MMP-11-**deficient** (MMP-11(-/-)) mice. Neointima formation 2 to 3 weeks after electric injury of the femoral artery was significantly enhanced in MMP-11-/- as compared with MMP-11(+/+) mice, in both mice of a pure 129SV genetic background (0.014 versus 0.0010 mm(2) at 2 weeks, P<0.001) and those of a 50/50 mixed 129SV/BL6 background (0.030 versus 0.013 mm(2) at 3 weeks, P<0.05). The medial areas were comparable, resulting in intima/media ratios that were significantly increased in MMP-11(-/-) as compared with MMP-11(+/+) arteries, in mice of both the 129SV (1.0 versus 0.18, P<0.001) and mixed (1.5 versus 0.70, P<0.05) backgrounds. Nuclear cell counts in cross-sectional areas of the intima of the injured region were higher in arteries from MMP-11(-/-) mice than in those from MMP-11(+/+) mice (210 versus 48, P<0.001, in pure 129SV mice and 290 versus 150, P<0.01, in mice of the mixed genetic background). Immunocytochemical analysis revealed that alpha-actin-positive and CD45-positive cells were more abundant in intimal sections of MMP-11-/- mice. Degradation of the internal elastic lamina was more extensive in arteries of MMP-11(-/-) mice than in those of MMP-11(+/+) mice (39% versus 6.8% at 3 weeks, P<0.005). The mechanisms by which MMP-11 could impair **elastin** degradation and cellular migration in this model remain, however, unknown.

L6 ANSWER 5 OF 8 MEDLINE
AN 1999278197 MEDLINE
DN 99278197 PubMed ID: 10347091
TI EVEC, a novel epidermal growth factor-like repeat-containing protein upregulated in embryonic and diseased adult vasculature.
CM Comment in: Circ Res. 1999 May 28;84(10):1234
AU Kowal R C; Richardson J A; Miano J M; Olson E N
CS Department of Internal Medicine, University of Texas Southwestern Medical Center, Dallas, Texas 75235-9148, USA.
SO CIRCULATION RESEARCH, (1999 May 28) 84 (10) 1166-76.
Journal code: 0047103. ISSN: 0009-7330.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
OS GENBANK-AF137350
EM 199906
ED Entered STN: 19990712
Last Updated on STN: 20020420
Entered Medline: 19990623
AB A hallmark of vascular lesions is the phenotypic modulation of vascular smooth muscle cells (VSMCs) from a quiescent, contractile state to a more primitive, proliferative phenotype with a more fetal pattern of gene expression. Using subtraction hybridization to identify genes that may

regulate this transition, we cloned a novel gene named EVEC, an acronym for its expression in the embryonic vasculature and the presence of Ca2+ binding epidermal growth factor-like repeats contained in the predicted protein structure. Although these repeats are characteristic of the extracellular matrix proteins, fibrillin, fibulin, and the latent transforming growth factor-beta binding proteins, EVEC most closely resembles the H411 and T16/S1-5 gene products, the latter of which are believed to regulate DNA synthesis in quiescent fibroblasts. Using in situ hybridization, we demonstrated that EVEC is expressed predominantly in the VSMCs of developing arteries in E11.5 through E16.5 mouse embryos. Lower levels of expression are also observed in endothelial cells, perichondrium, intestine, and mesenchyme of the face and kidney. EVEC mRNA expression is dramatically downregulated in adult arteries, except in the uterus, where cyclic angiogenesis continues; however, EVEC expression is reactivated in 2 independent rodent models of vascular injury. EVEC mRNA is observed in cellular elements of atherosclerotic plaques of LDL receptor-**deficient**, human apolipoprotein B **transgenic mice** and in VSMCs of the media and neointima of balloon-injured rat carotid arteries. These data suggest that EVEC may play an important role in the regulation of vascular growth and maturation during development and in lesions of injured vessels.

L6 ANSWER 6 OF 8 SCISEARCH COPYRIGHT 2002 ISI (R)
AN 1998:920166 SCISEARCH
GA The Genuine Article (R) Number: 142NE
TI Reduced transplant arteriosclerosis in plasminogen-**deficient** mice
AU Moons L; Shi C W; Ploplis V; Plow E; Haber E; Collen D (Reprint); Carmeliet P
CS KATHOLIEKE UNIV LEUVEN, FLANDERS INTERUNIV INST BIOTECHNOL, CTR TRANSGENE TECHNOL & GENE THERAPY, B-3000 LEUVEN, BELGIUM (Reprint); KATHOLIEKE UNIV LEUVEN, FLANDERS INTERUNIV INST BIOTECHNOL, CTR TRANSGENE TECHNOL & GENE THERAPY, B-3000 LEUVEN, BELGIUM; HARVARD UNIV, SCH PUBL HLTH, CARDIOVASC BIOL LAB, BOSTON, MA 02115; CLEVELAND CLIN FDN, JJ JACOBS CTR THROMBOSIS & VASC BIOL, CLEVELAND, OH 44195
CYA BELGIUM; USA
SO JOURNAL OF CLINICAL INVESTIGATION, (15 NOV 1998) Vol. 102, No. 10, pp. 1788-1797.
Publisher: ROCKEFELLER UNIV PRESS, 1114 FIRST AVE, 4TH FL, NEW YORK, NY 10021.
ISSN: 0021-9738.
DT Article; Journal
FS LIFE
LA English
REC Reference Count: 33
*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*
AB Recent gene targeting studies indicate that the plasminogen system is implicated in cell migration and matrix degradation during arterial neointima formation and atherosclerotic aneurysm formation. This study examined whether plasmin proteolysis is involved in accelerated posttransplant arteriosclerosis (graft arterial disease). Donor carotid arteries from wild-type B10.A2R mice were transplanted into either plasminogen wild-type (Plg(+/+)) or homozygous plasminogen-**deficient** (Plg(-/-)) recipient mice with a genetic background of 75% C57BL/6 and 25% 129. Within 15 d after allograft transplantation, leukocytes and macrophages infiltrated the graft intima in Plg(+/+) and

Plg(-/-) recipient mice to a similar extent. In Plg(+/+) recipients, the elastic laminae in the transplant media exhibited breaks through which macrophages infiltrated before smooth muscle cell proliferation, whereas in Plg(-/-) recipients, macrophages failed to infiltrate the transplant media which remained structurally more intact. After 45 d of transplantation, a multilayered smooth muscle cell-rich transplant neointima developed in Plg(+/+) hosts, in contrast to Plg(-/-) recipients, in which the transplants contained a smaller intima, predominantly consisting of leukocytes, macrophages, and thrombus. Media necrosis, fragmentation of the elastic laminae, and adventitial remodeling were more pronounced in Plg(+/+) than in Plg-'- recipient mice. Expression of the plasminogen activators (PA), urokinase-type PA (u-PA) and tissue-type PA (t-PA), and expression of the matrix metalloproteinases (MMPs), MMP-3, MMP-9, MMP-12 and MMP-13, were significantly increased within 15 d of transplantation when cells actively migrate. These data indicate that plasmin proteolysis plays a major role in allograft arteriosclerosis by mediating **elastin** degradation, macrophage infiltration, media remodeling, medial smooth muscle cell migration, and formation of a neointina.

L6 ANSWER 7 OF 8 SCISEARCH COPYRIGHT 2002 ISI (R)
AN 97:842412 SCISEARCH
GA The Genuine Article (R) Number: YE934
TI Alveogenesis failure in PDGF-A-**deficient** mice is coupled to lack of distal spreading of alveolar smooth muscle cell progenitors during lung development
AU Lindahl P; Karlsson L; Hellstrom M; GebreMedhin S; Willetts K; Heath J K; Betsholtz C (Reprint)
CS GOTHENBURG UNIV, DEPT MED BIOCHEM & MICROBIOL, MEDICINAREGATAN 9A, S-41390 GOTHENBURG, SWEDEN (Reprint); GOTHENBURG UNIV, DEPT MED BIOCHEM & MICROBIOL, S-41390 GOTHENBURG, SWEDEN; UNIV BIRMINGHAM, SCH BIOCHEM, BIRMINGHAM B15 2TT, W MIDLANDS, ENGLAND
CYA SWEDEN; ENGLAND
SO DEVELOPMENT, (OCT 1997) Vol. 124, No. 20, pp. 3943-3953.
Publisher: COMPANY OF BIOLOGISTS LTD, BIDDER BUILDING CAMBRIDGE COMMERCIAL PARK COWLEY RD, CAMBRIDGE, CAMBS, ENGLAND CB4 4DL.
ISSN: 0950-1991.
DT Article; Journal
FS LIFE
LA English
REC Reference Count: 51
*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*
AB PDGF-A(-/-) mice lack lung alveolar smooth muscle cells (SMC), exhibit reduced deposition of **elastin** fibres in the lung parenchyma, and develop lung emphysema due to complete failure of alveogenesis, We have mapped the expression of PDGF-A, PDGF receptor-alpha, **tropoelastin**, smooth muscle alpha-actin and desmin in developing lungs from wild type and PDGF-A(-/-) mice of pre- and postnatal ages in order to get insight into the mechanisms of PDGF-A-induced alveolar SMC formation and **elastin** deposition, PDGF-A was expressed by developing lung epithelium. Clusters of PDGF-R alpha-positive (PDGF-R alpha(+)) mesenchymal cells occurred at the distal epithelial branches until embryonic day (E) 15.5. Between E16.5 and E17.5, PDGF-R alpha(+) cells multiplied and spread to acquire positions as solitary cells in the terminal sac walls, where they remained until the onset of alveogenesis.

In PDGF-A(-/-) lungs PDGF-R alpha(+) cells failed to multiply and spread and instead remained in prospective bronchiolar walls, Three phases of **tropoelastin** expression were seen in the developing lung, each phase characterized by a distinct pattern of expression, The third phase, **tropoelastin** expression by developing alveolar SMC in conjunction with alveogenesis, was specifically and completely absent in PDGF-A(-/-) lungs, We propose that lung PDGF-R alpha(+) cells are progenitors of the **tropoelastin**-positive alveolar SMC, We also propose that postnatal alveogenesis failure in PDGF-A(-/-) mice is due to a prenatal block in the distal spreading of PDGF-R alpha(+) cells along the tubular lung epithelium during the canalicular stage of lung development.

L6 ANSWER 8 OF 8 MEDLINE
AN 96385451 MEDLINE
DN 96385451 PubMed ID: 8791511
TI Developmental genetics of the heart.
AU Burn J; Goodship J
CS Department of Human Genetics, University of Newcastle upon Tyne, UK. john.burn@ncl.ac.uk
SO CURRENT OPINION IN GENETICS AND DEVELOPMENT, (1996 Jun) 6 (3) 322-5.
Ref: 34
Journal code: 9111375. ISSN: 0959-437X.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LA English
FS Priority Journals
EM 199612
ED Entered STN: 19970128
Last Updated on STN: 19970128
Entered Medline: 19961204
AB Studies of children with heart defects and chromosomal anomalies have led to the discovery that loss of an **elastin** gene can cause supravalvar aortic stenosis and that a 2 Mb deletion from 22q11 is second only to Down's syndrome as a cause of heart defects. Molecular dissection of the 22q11 region to find the genes which produce the outflow-tract defects and other disorders of neural crest migration has proven more difficult, as there are a large number of genes in the deleted region. Classic mapping studies have located a gene which can cause total anomalous venous drainage near the centromere of chromosome 4. **Knockout** mouse studies have demonstrated an important role in cardiac development for, amongst others, endothelin-1 and neuregulin. Functional redundancy and maternal rescue are two reasons why **knockouts** do not always live up to our expectations. Serendipitous findings in the mouse are equally important. Work continues to isolate the inversion of embryo turning (inv) gene which invariably disturb the left-->right gradient in homozygotes, causing heart defects in many instances. Sadly, the original insertional mutation has resulted in a complex deletion duplication which has slowed discovery of the coding sequence.

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